

WE CLAIM AS OUR INVENTION:

1. A processing device for a magnetic resonance tomography apparatus in which a test bolus measurement is conducted for a subsequent angiographic measurement using a contrast agent, said processing device comprising:

a processor for determining a time curve for arterial contrast agent concentration from said test bolus measurement; and

a display connected to and operated by said processor for displaying an interactive graphic user interface comprising a test bolus pop-up containing said time curve of said arterial contrast agent concentration, for time planning of said subsequent angiographic measurement.

2. A processing device as claimed in claim 1 wherein said processor also determines a time curve of venous contrast agent concentration from said test bolus measurement and wherein said test bolus pop-up also contains said time curve of said venous contrast agent concentration.

3. A processing device as claimed in claim 2 wherein said test bolus measurement is comprised of a series of images, and wherein said processor calculates a standard deviation image from said series of images in said test bolus measurement, and wherein said processor operates said display to display said standard deviation image, and wherein said interactive graphic user interface allows an arterial region and a venous region in said standard deviation image to be marked in said standard deviation image and evaluated over an entirety of said series of images.

4. The processing device as claimed in claim 3 wherein said processor causes magnetic resonance measurement protocols for operating said magnetic resonance tomography apparatus to be graphically presented true-to-scale in said interactive graphic user interface represented as measuring bars correlated to said time curve of said arterial contrast agent concentration and said time curve of said venous contrast concentration.

5. A processing device as claimed in claim 4 wherein said display allows said measuring bars in said interactive graphic user interface to be displaced relative to each other and relative to the respective time curves.

6. A processing device as claimed in claim 5 further comprising a mouse connected to said processor, said mouse being manipulatable to displace said measuring bars.

7. A processing device as claimed in claim 5 wherein said display includes, in said interactive graphic user interface, an input window into which input values are enterable by a user to displace said measuring bars.

8. A processing device as claimed in claim 4 wherein said processor causes said display to include, in said interactive graphic user interface, a time lapse bar providing a graphical indication of a time course of said test bolus measurement.

9. A processing device as claimed in claim 7 wherein said processor causes said display to include, in said interactive graphic user interface, a PROCESS pop-up presenting said time course of said test bolus measurement and including said time lapse bar.

10. A method for operating a magnetic resonance tomography apparatus in which a test bolus measurement is conducted for a subsequent angiographic measurement using a contrast agent, said processing device comprising the steps of:

in a processor, determining a time curve for arterial contrast agent concentration from said test bolus measurement; and
displaying an interactive graphic user interface comprising a test bolus pop-up containing said time curve of said arterial contrast agent concentration, for time planning of said subsequent angiographic measurement.

11. A method as claimed in claim 10 comprising, in said processor, also determining a time curve of venous contrast agent concentration from said test bolus measurement and also displaying said time curve of said venous contrast agent concentration in said test bolus pop-up.

12. A method as claimed in claim 11 wherein said test bolus measurement is comprised of a series of images, and comprising, in said processor, calculating a standard deviation image from said series of images in said test bolus measurement, and displaying said standard deviation image, and via said interactive graphic user interface, marking an arterial region and a venous region in said standard deviation image in said standard deviation image and for evaluating over an entirety of said series of images.

13. A method as claimed in claim 12 comprising graphically pre-seating magnetic resonance measurement protocols for operating said magnetic resonance tomography apparatus true-to-scale in said interactive

graphic user interface represented as measuring bars correlated to said time curve of said arterial contrast agent concentration and said time curve of said venous contrast concentration.

14. A method as claimed in claim 13 comprising allowing said measuring bars in said interactive graphic user interface to be displaced relative to each other and relative to the respective time curves.

15. A method as claimed in claim 14 displacing said measuring bars by manipulating a mouse connected to said processor.

16. A method as claimed in claim 14 comprising displaying, in said interactive graphic user interface, an input window, and entering input values are into said input window to displace said measuring bars.

17. A method as claimed in claim 14 comprising including, in said interactive graphic user interface, a time-lapse bar providing a graphical indication of a time course of said test bolus measurement.

18. A method as claimed in claim 17 comprising including, in said interactive graphic user interface, a PROCESS pop-up presenting said time course of said test bolus measurement and including said time lapse bar.

19. A computer program product loadable into a processing device, having a display connected thereto, of a magnetic resonance tomography apparatus in which a test bolus measurement is conducted for a subsequent angiographic measurement using a contrast agent, said computer program product causing processing device to:

determine a time curve for arterial contrast agent concentration from said test bolus measurement; and

display, on said display, an interactive graphic user interface comprising a test bolus pop-up containing said time curve of said arterial contrast agent concentration, for time planning of said subsequent angiographic measurement.